

What is claimed is:

1. An isolated nucleic acid molecule selected from the group consisting of:
  - (a) the DNA sequence of SEQ ID NO:1;
  - (b) an isolated nucleic acid molecule encoding an amino acid sequence comprising the sequence of SEQ ID NO:2;
  - (c) an isolated nucleic acid molecule that hybridizes to either strand of a denatured, double-stranded DNA comprising the nucleic acid sequence of (a) or (b) under conditions of moderate stringency in 50% formamide and 6XSSC, at 42°C with washing conditions of 60°C, 0.5XSSC, 0.1% SDS;
  - (d) an isolated nucleic acid molecule derived by *in vitro* mutagenesis from SEQ ID NO:1; or
  - (e) an isolated nucleic acid molecule degenerate from SEQ ID NO:1 as a result of the genetic code.
2. A recombinant vector that directs the expression of the nucleic acid molecule of claim 1.
3. An isolated polypeptide encoded by the nucleic acid molecule of claim 1.
4. Isolated antibodies that bind to a polypeptide of claim 3.
5. Isolated antibodies according to claim 4, wherein the antibodies are monoclonal antibodies.
6. A host cell transfected or transduced with the vector of claim 2.

7. A method for the production of an RGL polypeptide comprising culturing a host cell of claim 6 under conditions promoting expression, and recovering the polypeptide from the culture medium.
8. The method of claim 7, wherein the host cell is selected from the group consisting of bacterial cells, yeast cells, plant cells, and animal cells.
9. The composition of claim 3 further comprising a pharmaceutically acceptable carrier selected from the group consisting of water, oils, alcohols, salts, fatty acids, saccharides, polysaccharides and combinations thereof.
10. A diagnostic kit comprising the polypeptide of claim 3 for the detection of neoplastic disease.
11. The kit of claim 10 wherein the neoplastic disease is a genitourinary cancer or metastatic disease.
12. The kit of claim 11 wherein the genitourinary cancer or metastatic disease is prostate cancer.
13. An isolated RGL receptor protein or portion thereof which binds to the polypeptide of claim 1.
14. An isolated nucleic acid molecule selected from the group consisting of:
  - (a) the DNA sequence of SEQ ID NO:3;

- (b) an isolated nucleic acid molecule encoding an amino acid sequence comprising the sequence of SEQ ID NO:4;
- (c) an isolated nucleic acid molecule that hybridizes to either strand of a denatured, double-stranded DNA comprising the nucleic acid sequence of (a) or (b) under conditions of moderate stringency in 50% formamide and 6XSSC, at 42°C with washing conditions of 60°C, 0.5XSSC, 0.1% SDS;
- (d) an isolated nucleic acid molecule derived by *in vitro* mutagenesis from SEQ ID NO:3; and
- (e) an isolated nucleic acid molecule degenerate from SEQ ID NO:3 as a result of the genetic code.

15. A recombinant vector that directs the expression of the nucleic acid molecule of claim 14.
16. An isolated polypeptide encoded by the nucleic acid molecule of claim 14.
17. Isolated antibodies that bind to a polypeptide of claim 16.
18. Isolated antibodies according to claim 17, wherein the antibodies are monoclonal antibodies.
19. A host cell transfected or transduced with the vector of claim 15.

20. A method for the production of an RGL polypeptide comprising culturing a host cell of claim 19 under conditions promoting expression, and recovering the polypeptide from the culture medium.

21. The method of claim 20, wherein the host cell is selected from the group consisting of bacterial cells, yeast cells, plant cells, and animal cells.

22. The composition of claim 16 further comprising a pharmaceutically acceptable carrier selected from the group consisting of water, oils, alcohols, salts, fatty acids, saccharides, polysaccharides and combinations thereof.

23. A diagnostic kit comprising the polypeptide of claim 16 for the detection of neoplastic disease.

24. The kit of claim 23 wherein the neoplastic disease is a genitourinary cancer or metastatic disease.

25. The kit of claim 24 wherein the genitourinary cancer or metastatic disease is prostate cancer.

26. An isolated RGL receptor protein or portion thereof which binds to the polypeptide of claim 16.

27. A polypeptide comprising an amino acid sequence of SEQ ID NO.: 4.

28. The polypeptide of claim 27 wherein the polypeptide has an anti-neoplastic activity.
29. The polypeptide of claim 27 comprising amino acids 105-113 of SEQ ID NO.:  
4.
30. The polypeptide of claim 29 wherein the polypeptide has an anti-neoplastic activity.
31. The polypeptide of claim 29 wherein the polypeptide is capable of inducing apoptosis in a neoplastic cells.
32. An antibody which is reactive against an polypeptide comprising SEQ ID NO.:  
4.
33. The antibody of claim 32 which is a monoclonal antibody.
34. A hybridoma which produces the monoclonal antibody of claim 33.
35. A diagnostic kit comprising the antibody of claim 32 for the detection of neoplastic disease.
36. The kit of claim 35 wherein the neoplastic disease is a genitourinary cancer or metastatic disease.

37. The kit of claim 36 wherein the genitourinary cancer or metastatic disease is prostate cancer.

38. A vaccine comprising at least a portion of the polypeptide of SEQ ID NO.: 4.

39. A method for treating a patient comprising administering to the patient a therapeutically effective amount of a composition comprising at least an active portion of the polypeptide of SEQ ID NO.: 4.

40. The method of claim 39 wherein the polypeptide has anti-neoplastic activity.

41. The method of claim 40 wherein the anti-neoplastic activity is a modulation of chemokine expression.

42. The method of claim 40 wherein the anti-neoplastic activity is a modulation of cytokine expression.

43. The method of claim 39 wherein the therapeutically effective amount of the composition is administered locally to a tumor site, systemically, or parenterally.

44. A method for treating a patient comprising administering to the patient a therapeutically effective amount of a composition comprising at least an active portion of the polypeptide of SEQ ID NO.: 2.

45. The method of claim 44 wherein the polypeptide has anti-neoplastic activity.

46. The method of claim 45 wherein the anti-neoplastic activity is a modulation of chemokine expression.

47. The method of claim 45 wherein the anti-neoplastic activity is a modulation of cytokine expression.

48. The method of claim 44 wherein the therapeutically effective amount of the composition is administered locally to a tumor site, systemically, or parenterally.

49. A composition for the treatment or prevention of a metastatic disorder comprising a recombinant vector comprising a promoter for the RGL gene functionally linked to an gene that has anti-neoplastic activity.

50. The composition of claim 49 wherein the metastatic disorder is prostate cancer.

51. The composition of claim 49 wherein the anti-neoplastic activity is an altering of chemokine expression.

52. The composition of claim 49 wherein the anti-neoplastic activity is an altering of cytokine expression.

53. A method for treating a patient with a metastatic disorder comprising administering to the patient a therapeutically effective amount of a composition comprising at least a portion of the nucleotide of SEQ ID NO.: 1.

54. The method of claim 53 wherein the nucleotide encodes a polypeptide which has anti-neoplastic activity.

55. The method of claim 54 wherein the anti-neoplastic activity is a modulation of chemokine expression.

56. The method of claim 54 wherein the anti-neoplastic activity is a modulation of cytokine expression.

57. The method of claim 53 wherein the therapeutically effective amount of the composition comprises an adenoviral vector.

58. A method for treating a patient with a metastatic disorder comprising administering to the patient a therapeutically effective amount of a composition comprising at least a portion of the nucleotide of SEQ ID NO.: 3.

59. The method of claim 58 wherein the nucleotide encodes a polypeptide which has anti-neoplastic activity.

60. The method of claim 59 wherein the anti-neoplastic activity is a modulation of chemokine expression.

61. The method of claim 59 wherein the anti-neoplastic activity is a modulation of cytokine expression.



62. The method of claim 58 wherein the therapeutically effective amount of the composition comprises an adenoviral vector.